

AMENDMENT

U.S. Appln. No. 10/768,094

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claim 1. (Currently Amended) A method for the treatment of a malignant tumor and prevention or treatment of Graft Versus Host Disease (GVHD) induced by donor lymphocyte infusion in a patient, the method comprising which comprises:

- (A) performing donor lymphocyte infusion (DLI) in a patient requiring such treatment and having a malignant tumor;
- (B) then performing:
 - (i) radiation treatment (irradiation),
 - (ii) infusion of lymphocytes derived from the host or derived from a third party having the identical in HLA type as to the host (HLI), and
 - (iii) intra bone marrow-bone marrow transplantation (IBM-BMT) using bone marrow cells derived from the host or derived from a third party having the identical in HLA type as to the host.

Claim 2. (Cancelled).

Claim 3. (Currently Amended) The method offer the treatment of malignant tumor as defined in Claim 1, wherein a first further radiation treatment is performed prior to the donor lymphocyte infusion.

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Claim 4. (Currently Amended) The method offer—the treatment of malignant tumor as defined in Claim 1, wherein the DLIdonor lymphocyte infusion is performed byin the manner of intravenous administration of an effective amount of donor-derived peripheral blood mononuclear cells.

Claim 5. (Currently Amended) The method offer—the treatment of malignant tumor as defined in Claim 1, wherein saidthe radiation treatment following the donor lymphocyte infusion is performed byin the manner of total body irradiation at a dose of 3-4 Gy.

Claim 6. (Currently Amended) The method offer—the treatment of malignant tumor as defined in Claim 1, wherein the HLIinfusion of lymphocytes derived from the host or a third party identical in HLA type to the host is performed byin the manner of intravenous administration of an effective amount of peripheral blood mononuclear cells derived form the host or derived from a third party having the identical in-HLA type as to the host.

Claim 7. (Currently Amended) The method offer—the treatment of malignant tumor as defined in Claim 1, wherein the bone marrow cells are whole bone marrow cells derived from the host or derived from a third party having the identical in-HLA type as to the host.

Claim 8. (Currently Amended) The method offer—the treatment of malignant tumor as defined in Claim 7¹, wherein the bone marrow cells are whole bone marrow cells are obtained by inserting a bone marrow puncture needle into one end of a long bone of the host or of the third party identical in HLA type to

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~~the host, causing an irrigating fluid to flow via the needle through the medullary cavity, and recovering the irrigating fluid containing bone marrow cells from a perforation provided at the other end of the long bone.~~

Claim 9. (Currently Amended) The method ~~offer—the treatment of malignant tumor as defined in Claim 1, wherein the IBM-BMTintra bone marrow bone marrow transplantation is performed byin the manner of administration, into a long bone, of an effective amount of whole bone marrow cells derived from the host or thea third party—identical in HLA type to the host.~~

Claim 10. (Currently Amended) A method for—the treatment of a malignant tumor and prevention or treatment of Graft Versus Host Disease (GVHD) induced by donor lymphocyte infusion in a patient, the method comprisingwhich comprises:

(A) performing donor lymphocyte infusion (DLI) or graft versus tumor reaction based tumor treatment in a patient having a malignant tumor to be treated; and

(B) then performing:

- (i) radiation treatment (irradiation), and
- (ii) intravenous administration of peripheral blood stem cells derived from the host or derived from a third party having the identical in HLA type to the host ~~for the prevention and treatment of the graft versus host disease caused by said donor lymphocyte infusion.~~

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Claim 11. (Currently Amended) The method offer—the treatment of malignant tumor as defined in Claim 1, wherein the malignant tumor is selected from the group consisting of among leukemia, malignant lymphoma, multiple myeloma, sarcoma, melanoma, brain tumor, stomach cancer, tongue cancer, esophageal carcinoma, colorectal cancer, liver cancer, gallbladder carcinoma, pancreatic carcinoma, renal carcinoma, bladder cancer, nasopharyngeal cancer, laryngeal cancer, skin cancer, mammary cancer, testicular cancer, ovarian cancer, uterus carcinoma, and lung cancer.

Claim 12. (Currently Amended) A pharmacological composition for use in the malignant tumor treatment method as defined in Claim 1 which comprises:

- (1) a composition containing donor-derived peripheral blood mononuclear cells,
- (2) a composition containing peripheral blood mononuclear cells derived from the host or derived from thea third party having the identical in HLA type asto the host, and
- (3) a composition containing whole bone marrow cells derived from the host or derived from thea third party having the identical in HLA type asto the host.

Claim 13. (Currently Amended) A method for—the prevention or and treatment of a the—graft versus host disease induced by donor lymphocyte infusion in a patient, the method comprising which comprises performing, in said a patient—to be

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~~treated for the prevention and treatment of the graft versus host disease,:~~

- (A) radiation treatment (irradiation),
- (B) infusion of lymphocytes derived from the host or derived from a third party having the identical in-HLA type asto the host, and
- (C) intra bone marrow-bone marrow transplantation using bone marrow cells derived from the host or derived from a third party having the identical in-HLA type asto the host.

Claim 14. (Currently Amended) A pharmacological composition for use in the method for the prevention and treatment of the graft versus host disease induced by donor lymphocyte infusion as defined in Claim 13 which comprises:

- (1) a composition containing peripheral blood mononuclear cells derived from the host or derived from thea third party having the identical-in HLA type asto the host, and
- (2) a composition containing whole bone marrow cells derived from the host or derived from thea third party having the identical in-HLA type asto the host.